



Recycling Rechargeable Batteries

A public service program from the
Rechargeable Battery Recycling
Corporation

Who is RBRC???

- Rechargeable Battery Recycling Corporation
- Industry funded, national non-profit public service organization
- Mission: public education on responsible rechargeable battery management; facilitate collection of used rechargeable batteries
- Promote no cost rechargeable battery recycling service for public agencies, municipalities, retailers and businesses
- 26 million lbs. of batteries recycled by RBRC since collection program commenced

What are rechargeable batteries?

- Nickel Cadmium (ni-cad), nickel metal hydride, lithium ion, and small sealed lead acid batteries (SSLA's under 2 lbs).



Any rechargeable electronic device has a rechargeable battery

Business Applications

- Two way radios
- Portable Power Tools
- Hand held scanning devices
- Laptop computers
- Cell phones/walkie talkies
- Field Monitoring equipment
- Hospital heart/vital sign monitors
- Emergency Lighting

Consumer Applications

- Remote control toys
- Digital Cameras/Camcorders
- Portable Power Tools
- Laptop Computers
- Cordless Phones
- Portable Vacuum Cleaners
- Portable Shavers
- Solar lighting
- PDAs
- iPODs/MP3s
- Portable DVD Players



•What types of batteries can be recycled in RBRC program?

Accepted

- Nickel cadmium
- Nickel metal hydride
- Lithium Ion
- Small sealed lead under two lbs.(some exceptions for larger sealed lead batteries)

NOT Accepted

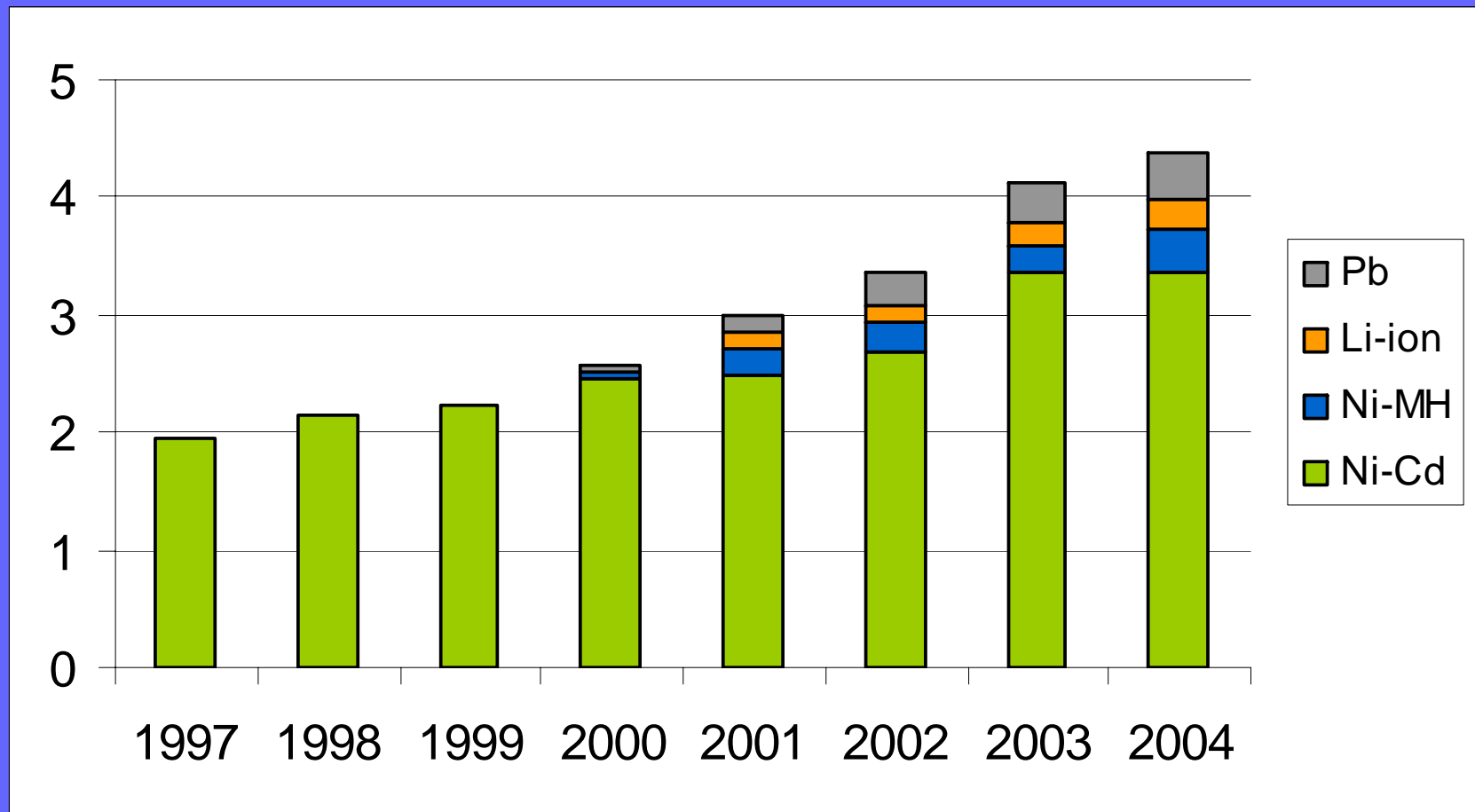
- Primary (non-rechargeable) batteries of any type
 - Alkaline
 - “button”batteries
 - Vehicle lead batteries
 - Wet cell batteries
 - Lithium primary

Who Recycles with RBRC?

- 43,600 + participants in United States and Canada
 - 37,770 retailers
 - 2,017 public agencies
 - 1,337 communities
 - 1,965 businesses*

* Businesses were only added free of charge to RBRC program in May 2005; previously charged a flat rate for box shipments.

Quantity of rechargeable batteries recycled by RBRC



Environmental Impacts

Waste Stream:

- Consumer batteries (rechargeable/non-rechargeable batteries are .2 % of the waste stream (USEPA)
- Rechargeable Batteries are a small percentage of consumer batteries
- Rechargeable batteries reduce waste –replace 50-300 single service batteries

Regulatory

- Universal Waste Designation for Ni-cad, Pb
- Ni-cad and small sealed Pb batteries banded from disposal in seven states (FL,IA,ME,MD,MN,NJ,VT)
- Lead batteries (all types) banned in 30 states
- Federal: Used ni-cad,Pb batteries must be managed as universal waste; prohibits disposal and requires recycling

Rechargeable Battery Recycling



RBRC uses collection boxes like these to collect batteries at more than 43,000 locations in U.S and Canada.

Labeled as shipping used rechargeable batteries as universal waste

Direct shipment from generator to processor/recycler

Nearly 5 million lbs. of batteries recycled by RBRC in 2005

How does the program work?

- Enroll and receive an RBRC site identification number
- Pre-Paid, pre-addressed boxes (2,4, or 8 can be ordered)
- Each box holds 40-50 lbs. of batteries/cell phones
- Enroll as many locations as generate batteries
- Mixing battery chemistries is OK
- Bag each battery with bags provided or tape terminal end of each battery
- Seal up full box; begin using backup box
- UPS pick up at your location for free
- Automatic box replenishment system
- Convenient, non-obtrusive program



How are batteries recycled?

- RBRC uses state of the art, fully permitted metals smelter- Inmetco
- Inmetco is only approved recycler of ni-cads in N.A.
- All battery components are recycled: nickel, iron, stainless steel, cadmium, lead, copper and other metals.
- 50% energy savings in metals recovery over metal production from virgin ore, plus reductions in CO₂, NO_x and SO₂
- Batteries are transported from generator to recycler directly via UPS as universal waste classification
- All batteries are recycled domestically; no exports

Why recycle through RBRC?

- Convenient: Pre-paid, preaddressed boxes, UPS pick-up at your facility
- No need to aggregate batteries from multiple locations; every generation point can have their own collection box
- Automatic replenishment system for boxes
- Responsible environmental management of batteries and cell phones
- Batteries shipped as universal waste for recycling directly from the generator to the processor
- Database for tracking shipments; reporting on quantities recycled by location

Economic Considerations

- RBRC program is free to public agencies, retailers and municipalities and ANY OTHER BUSINESS, regardless of quantity of rechargeable batteries generated for recycling
- How can RBRC program be free?
 - License recycling seal to over 300 companies
 - Funding support from battery manufacturers as environmental stewardship initiative



National retailers, local businesses participate in recycling for the public



Benefits of RBRC Battery Recycling Program

- ✓ Program complies with environmental regs.
- ✓ Assures recycling of batteries
- ✓ Convenient, easy to understand/participate
- ✓ Ability to enroll each location that generates batteries- no need to aggregate for shipping
- ✓ Replenishment Boxes sent automatically
- ✓ Data Access for Environmental Reporting
- ✓ Right Thing to Do to Conserve Resources/Protect the Environment
- ✓ NO COST Program; Industry product stewardship initiative